REMARKS

This Amendment is being filed in response to the Office Action mailed from the U.S. Patent and Trademark Office on February 28, 2008, in which claims 1-17 were rejected. With this amendment, claim 1 is amended and new claims 18-20 are added. No new matter has been added. Applicant respectfully requests reconsideration and allowance of pending claims 1-20 in view of the remarks below.

Claims 1-17 are rejected under 35 U.S.C. §102(b) as being anticipated by or alternatively rejected under 35 U.S.C. §103 as being obvious over U.S. Patent No. 4,990,260 to Pisani ("Pisani").

35 U.S.C. § 102

The Office Action has rejected claims 1-17 under 35 U.S.C. § 102(b) as being anticipated by or alternatively rejected under 35 U.S.C. § 103 as being obvious over Pisani. The Office Action states:

> Pisani teaches a system a system including all the elements of claim 1 (Figures 1-2, elements 20, 22, 26, 52, 54, 36, 72, 70). Patent '260 does further teaches the use of UV radiation as conventional in the art for water disinfection (column 3, last paragraph bridging column 4).The mixed bed deionizer is connected to the UV unit 36 is connected to UV unit, and mixed bed (60) is also fluidly connected with the UV unit; the UV unit is alternatively connected to another micron filter (72) before discharge from the system; Therefore, the cartridge is operatively connected to the deionizer, because it supplies fluid to the end use point, which water can also be treated by the mixed bed before discharge. It would have been further obvious to one skilled in the art at the time this invention was made to place the cartridge (72) after the ion exchange (60), e.g. to remove any final residue from the water. The skilled in the art at the time this invention was made have the knowledge to predict the final results when these two final units are changed around the system in a membrane water posttreament. Using 5 micron filters is further disclosed in the patent (column 6, lines 10-column 7 line 52). Using carbon filter in the pretreatment is disclosed in the patent, providing the carbon in a powder or granular form would have been obvious to the skilled artisan, e.g. to provide a

> large carbon surface area, and increase the amount of contaminants removed as to claim 4, and 5adding [sic] additional carbon filters to the system is considered cumulative, duplicating the separation step in the system. As to claim 6, dissolved and undissolved contaminants are expected to be remove from the RO membrane, separation of those components are inherent based on the membrane molecular weight cutoff. The operating pressure conditions for the RO are known to the skilled artisan. the [sic] pressure operation is depending of whether the membrane is a tight or a loose reverse osmosis, and/or on the degree of separation required. Valves are not shown in the system but considered and inherent part or an obvious arrangement, since valves are provided to avoid backflow in the system, backwash the system etc. The wave length is disclosed in the patent (column 8, first paragraph). As to claim 15, bypassing the ion exchange to minimize process costs when the fluid to be treated does not required that particular treatment would have been obvious to the skilled artisan. Regarding claims 16-17, using conventional water treatment modules of the art, and recycling reject water back to the membrane module would have been obvious to one skilled in this art at the time his invention was made, e.g. to obtain higher recovery.
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> (Office Action, mailed 2/28/08, p. 2-3).

To anticipate a claim, the reference must teach every element of the claim. M.P.E.P. 2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P. 2131. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. 2131.

Without acceding to the propriety of the rejection or the characterization of the prior art, independent claim 1 has been amended to further prosecution of this application. Claim 1 as amended is directed to a water purification system including, *inter alia*, an intake for receiving city feed water; a first cartridge filter operatively connected to said intake for receiving city feed water from said intake; a carbon filter operatively connected to said first cartridge filter for receiving water from said first

cartridge filter; a second cartridge filter operatively connected to said carbon filter for receiving water from said carbon filter; a reverse osmosis system operatively connected to said second cartridge filter for receiving water from said second cartridge filter, said reverse osmosis system comprising a reverse osmosis filter; an ultraviolet sterilizer operatively connected to said reverse osmosis system for receiving water from said reverse osmosis system; a mixed bed deionizer operatively connected to said ultraviolet sterilizer for receiving water from said ultraviolet sterilizer; a third cartridge filter operatively connected to said mixed bed deionizer for receiving water from said mixed bed deionizer; and a discharge operatively connected to said third cartridge filter for receiving water from said third cartridge filter, wherein said discharge discharges purified water.

Pisani (U.S. Patent No. 4,990,260) simply does not teach or suggest an intake for receiving city feed water. In fact, Pisani requires that the water is purified before being fed into the system. As recited in the abstract of Pisani, Pisani's "method and apparatus **begins with water which has been purified** to level of approximately 18 megaohms resistivity with total inorganic dissolved solids to 1 part per trillion and total organic dissolved carbon contaminants in the range of approximately 100 parts per billion" (*emphasis added*). As can be seen in Fig. 2 and as is described in Pisani, col. 6, lines 56-59, Pisani teaches that purified water 6 (from pretreatment) is fed into a high purity storage tank 40, stored in the storage tank 40 until it is fed into the rest of the system. "The purified water 6 may be fed into a high purity storage tank 40" (Pisani, col. 6, lines 56-58). Thus, Pisani simply does not teach or suggest an intake for receiving city feed water.

Further, Pisani teaches away from using city feed water in his system in the comparison between Pisani's system and the prior art. For example, in the Summary section of Pisani, Pisani teaches:

> "[t]he present invention relates to an apparatus and method for oxidizing and degrading microorganisms, organic and inorganic contaminants in waters used for industrial purposes such as cleaning and washing silicon wafers. **The waters are purified prior to use as opposed to the process in the Oxidation Article and Zaleiko Patent**

> **Application where the water and accompanying sewage was purified after use** and before being discarded"
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> (col. 3, lines 47-55) (*emphasis added*).

Pisani's system is designed to accept purified water only and not city feed water.

Thus, Pisani does not teach or suggest a system having an intake for receiving city feed water. Further Pisani teaches away from such a system by requiring that purified water be used in Pisani's system and contrasting Pisani's system with a prior art system that uses unpurified water.

Support for these amendments are found throughout the Applicant's specification and drawings as filed, including, but not limited to the following passages:

> "The system is suitable for use with **direct processing from city feed water**" (Applicant's abstract, lines 3-4) (*emphasis added*).
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> "**City feed water is passed through a cartridge filter**, preferably a 5 micron nominally rated cartridge filter in order to remove fine particles prior to the carbon filter" (Applicant's specification, page 2, ¶ [0040]) (*emphasis added*).
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> "This invention relates to a portable compact ultra high purity water system, which is suitable for use with **direct processing from city feed water**" (Applicant's specification, page 1, ¶ [0002]) (*emphasis added*).
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> "Portable Compact Ultra High Purity Water System Via Direct Processing from **City Feed Water**" (Applicant's title) (*emphasis added*).

Thus, claim 1 is not anticipated by and patentably distinguishes over Pisani and withdrawal of the rejections under §102(b) and §103 is respectfully requested.

Claims 2-17 depend from independent claim 1 and are patentable for at least the same reasons as claim 1. Thus, Applicant respectfully requests withdrawal of the rejections under §102(b) and §103.

New Claims

New dependent claims 18-20 have been added. Support for the new claims may be found throughout Applicant's specification and drawings as filed. No new matter has been added.

Dependent claim 18 is directed to a water purification system wherein the first cartridge filter is directly connected to the intake. Dependent claim 18 depends from claim 1 and is patentable for at least the same reasons as claim 1. In addition, Pisani does not teach a first cartridge filter being directly connected to the water intake. Instead, Pisani requires that a high purity storage tank (40) be placed between the water source and all purifying means. Thus, Pisani does not teach or suggest and in fact, teaches away from a first cartridge filter being directly connected to the water intake.

Dependent claim 19 is directed to a water purification system wherein said water purification system does not include a storage tank to store intermediary water. Dependent claim 19 depends from claim 1 and is patentable for at least the same reasons as claim 1. In addition, Pisani requires a high purity storage tank (40) be used in the system to store water. Thus, Pisani does not teach or suggest and in fact, teaches away from a system not having a storage tank to store water.

Dependent claim 20 is directed to a water purification system wherein said water purification system is portable. Dependent claim 19 depends from claim 1 and is patentable for at least the same reasons as claim 1. In addition, Pisani requires a high purity storage tank 40 be used in the system to store water. Thus, Pisani does not teach or suggest and in fact, teaches away from a system not having a storage tank to store water.

No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicant submits that all claims have been placed in a condition for allowance, and respectfully requests an early and favorable action by the Examiner. If the Examiner believes that a telephone conversation would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned. If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time.

Respectfully submitted,

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/David J. Dykeman/

Name: David J. Dykeman, Reg. No.: 46,678
Name: Amy F. Mendel, Reg. No.: 55,452
Customer No.: 35893
Greenberg Traurig
One International Place
Boston, MA 02110
Tel: 617-310-6009